

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/001992

## A. CLASSIFICATION OF SUBJECT MATTER

C07K7/06 C07K5/10 C07K5/08 A23J3/34 A61K38/06  
A61P9/12 C12P21/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07K A23J C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ, CHEM ABS Data, Sequence Search, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KOHMURA M ET AL: "INHIBITION OF ANGIOTENSIN-CONVERTING ENZYME BY SYNTHETIC PEPTIDES OF HUMAN BETA-CASEIN" AGRICULTURAL AND BIOLOGICAL CHEMISTRY, JAPAN SOC. FOR BIOSCIENCE, BIOTECHNOLOGY AND AGROCHEM. TOKYO, JP, vol. 53, no. 8, August 1989 (1989-08), pages 2107-2114, XP001105965 ISSN: 0002-1369	4,6,7
A	* abstract; table I, page 2109, left-hand column, second paragraph *	1-3,8-21
X	WO 97/24371 A (MIDIA LIMITED ; POZZILLI PAOLO (IT)) 10 July 1997 (1997-07-10) abstract; sequence 8	4,6-12, 15-21, 13,14, 22-28
Y		
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

9 August 2005

Date of mailing of the international search report

23. 12. 2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/068601 A (SKUBITZ AMY P N ; SKUBITZ KEITH M (US)) 6 September 2002 (2002-09-06) abstract; claims 1,2,29 -----	4,6-9, 15-21
X	PARTHASARATHI, R. ET AL: "Ab initio and density functional theory based studies on collagen triplets" THEORETICAL CHEMISTRY ACCOUNTS , 110(1), 19-27 CODEN: TCACFW; ISSN: 1432-881X, 2003, XP002288851 abstract; table 1 -----	4,6,7
Y	MAENO ET AL: "Identification of an antihypertensive peptide from casein hydrolyzate produced by a proteinase from Lactobacillus helveticus CP790" JOURNAL OF DAIRY SCIENCE, AMERICAN DAIRY SCIENCE ASSOCIATION. CHAMPAIGN, ILLINOIS, US, vol. 79, no. 8, 1996, pages 1316-1321, XP002095593 ISSN: 0022-0302 * abstract; page 1317, left-hand column, lines 5-14; figure 3; table 1; page 1320, left-hand column, second paragraph; page 1321, left-hand column, last paragraph *	13,14, 22-28
A	----- * abstract; page 1317, left-hand column, lines 5-14; figure 3; table 1; page 1320, left-hand column, second paragraph; page 1321, left-hand column, last paragraph *	1-21
Y	EP 0 737 690 A (CALPIS FOOD IND CO LTD) 16 October 1996 (1996-10-16) * abstract; paragraph joining pages 2 and 3; page 3, second paragraph; page 4, lines 13-16; table 2; claims 13 and 14 *	13,14, 22-28 1-21
A	----- FITZGERALD R J ET AL: "Milk protein-derived peptide inhibitors of angiotensin-I-converting enzyme" BRITISH JOURNAL OF NUTRITION 2000 UNITED KINGDOM, vol. 84, no. SUPPL. 1, 2000, pages S33-S37, XP009033839 ISSN: 0007-1145 cited in the application abstract; tables 1,2 -----	1-21
Y	SVENDSEN I: "CHEMICAL MODIFICATIONS OF THE SUBTILISINS WITH SPECIAL REFERENCE TO THE BINDING OF LARGE SUBSTRATES. A REVIEW" CARLSBERG RESEARCH COMMUNICATIONS, XX, XX, vol. 41, no. 5, 1976, pages 237-291, XP009030265 ISSN: 0105-1938 abstract -----	23,26-28
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# INTERNATIONAL SEARCH REPORT

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PCT/EP2005/001992

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>ASANO M ET AL: "INHIBITION OF PROLYL ENDOPEPTIDASE BY SYNTHETIC PEPTIDE FRAGMENTS OF HUMAN BETA CASEIN" AGRICULTURAL AND BIOLOGICAL CHEMISTRY, vol. 55, no. 3, 1991, pages 825-828, XP009033916 ISSN: 0002-1369 abstract; table 1</p> <p>-----</p>	<p>4,6-12, 15-21</p>

# INTERNATIONAL SEARCH REPORT

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-28 (all partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-28 (all partially)

Peptides comprising the sequence YGPIP<sub>N</sub> (Seq. ID 1) and fragments thereof. Compositions and uses of these peptides and fragments, and processes for their preparation.

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2. claims: 1-28 (all partially)

Peptides comprising the sequence SLPE (Seq. ID 2) and fragments thereof. Compositions and uses of these peptides and fragments, and processes for their preparation.

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3. claims: 1-28 (all partially)

Peptides comprising the sequence SEPK (Seq. ID 3) and fragments thereof. Compositions and uses of these peptides and fragments, and processes for their preparation.

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International Application No

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Information on patent family members

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9724371	A	10-07-1997	AT 207079 T	15-11-2001
			AU 720411 B2	01-06-2000
			AU 1306697 A	28-07-1997
			BR 9612346 A	28-12-1999
			CA 2241171 A1	10-07-1997
			DE 69616088 D1	22-11-2001
			DE 69616088 T2	01-08-2002
			EP 0871662 A1	21-10-1998
			ES 2164938 T3	01-03-2002
			IT RM950850 A1	27-06-1997
			NO 982777 A	16-06-1998
			NZ 325826 A	26-05-2000
			US 6750203 B1	15-06-2004
WO 02068601	A	06-09-2002	EP 1472276 A2	03-11-2004
EP 0737690	A	16-10-1996	JP 8283173 A	29-10-1996

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